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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,567	10/28/2003	Lung T. Tran	10017394-1	9177

22879 7590 09/09/2005

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EXAMINER

EVANS, JEFFERSON A

ART UNIT	PAPER NUMBER
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2652

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/695,567

Applicant(s)

TRAN ET AL.

Examiner

Jefferson A. Evans

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

Claims 1 to 24 are pending.

***Specification***

1. The title of the invention is not adequately descriptive. A new title is required that is more clearly indicative of the invention to which the claims are directed by more expressly establishing that the medium is moved in first and second directions in a common plane but perpendicular to each other.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 10, 12, 13, 16, 17, 21, and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Jacobson et al (U.S. 6,587,408). Jacobson discloses a storage device in which the head support and/or the medium support is made movable in two dimensions (column 3 – lines 40 to 60). The heads may be magnetic thin film read/write heads (column 6 – lines 57 to 60).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobson et al in view of Takano et al (U.S. 6,356,406). Jacobson does not expressly disclose his read head as being an MR head.

Takano discloses a plurality of MR read heads in a second plane (column 11- lines 50 to 555 and column 13 – line 45 to column 14 – line 18). The read heads are part of read write combination heads and the read portion of the heads utilize MR elements. The heads and medium are rectangular members moved relative to each other.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the magnetic read head of Jacobson to be a MR head, such as disclosed by Takano. The motivation would have been: Mr heads had become the standard form for read heads to read from a magnetic storage medium due to their beneficial reproduction characteristics.

6. Claims 4, 5, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobson et al in view of Takano et al. Neither reference discloses the read heads as being giant or tunneling MR heads.

Official Notice is given that it was notoriously old and well known in the art to have MR heads take the form of giant or tunneling MR heads.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the magnetic read head of Jacobson in view of Takano to be a giant or tunneling MR head. The motivation would have been: these type of MR elements had been established as being superior in reproduction characteristics and appropriate for reproducing from magnetic storage mediums with extremely high recording densities, and such elements had been established as particularly applicable to magnetic storage arrays such as MRAM arrays which have parallels to the inventions of Jacobson and Takano.

7. Claims 6-9, 14, 15, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobson et al. Jacobson does not appear to disclose the magnetic medium as being longitudinal or perpendicular.

Official Notice is given that it was notoriously old and well known in the art to have a magnetic medium be a perpendicular or longitudinal medium.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the magnetic medium of Jacobson to be a longitudinal or perpendicular medium. The motivation would have been: longitudinal or perpendicular are fundamentally the two forms magnetic storage mediums known in the prior art for use in tandem with thin film magnetic heads.

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobson. Jacobson does not disclose the heads as being mounted on cantilevers.

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Official Notice is given that it was notoriously old and well known in the art to have thin film read write heads mounted on cantilevers.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to position a head of Jacobson on a cantilever. The motivation would have been: a cantilever arrangement allowed the head to be biased towards the medium to maintain a close position relative thereto while allowing the head to respond to the medium, such as to irregularities in the surface of the medium, as the head and medium move relative to each other.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jefferson A. Evans whose telephone number is 571-272-7574. The examiner can normally be reached on Monday to Friday, 9:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JAE

September 6, 2005

Jefferson A. Evans  
Primary Examiner  
Art Unit 2652

**JEFFERSON EVANS**  
**PRIMARY EXAMINER**